

November 28, 2005

VIA ELECTRONIC FILING

Marlene H. Dortch, Secretary
Federal Communications Commission
The Portals
445 12th Street, S.W.
Washington, D.C. 20554

Re: **VoIP E911 Compliance Report (November 28, 2005)**
Lightyear Network Solutions, LLC; WC Docket No. 05-196

Dear Ms. Dortch:

Lightyear Network Solutions, LLC ("Lightyear"), through its undersigned counsel and pursuant to Commission Rule 9.5(f), as adopted by the Commission's *Order*¹ concerning the enhanced 911 ("E911") service requirements and conditions applicable to interconnected Voice over Internet Protocol ("VoIP") service providers, submits this Compliance Report ("Report") to advise the Commission of the status of Lightyear's efforts to comply with the Commission's VoIP E911 Rules.²

Lightyear provides a variety of telecommunication services and solutions to commercial and residential customers, including switched and dedicated access 1+ long distance, BizLocalSM phone service, DSL, integrated access services, frame relay, nationwide Internet access (dial-up and dedicated access), calling cards, web page hosting and development services, call analysis software for customized billing reports, multimedia conferencing and other services. Lightyear's Voice over Internet Protocol ("VoIP") service, which is branded as XSTREAMSM, is an Internet application that enables Lightyear's customers to communicate by voice over the Internet with

¹ *IP-Enabled Services, E911 Requirements for IP-Enabled Service Providers*, First Report and Order and Notice of Proposed Rulemaking 20 FCC Rcd. 10245 (2005) ("*Order*").

² Pursuant to the Commission's prior Public Notices, Lightyear has filed four status reports concerning the Company's efforts to notify its customers of the limitations associated with the Company's VoIP 911 service, and to obtain affirmative acknowledgments from those subscribers stating that they fully understand those limitations. These reports were filed in the above-referenced docket on August 10, September 1, September 22, and October 25, 2005.

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other users of the service and with users of ordinary telephones on the public switched telephone network. Lightyear currently has approximately 5,800 XSTREAM customers.

Lightyear's VoIP service is portable; so long as a Lightyear customer has access to broadband Internet access, the customer can make use of the service anywhere in the United States or the world. Customers may obtain their broadband Internet access from Lightyear, but they are not required to do so. XSTREAM also allows customers located in one geographic area to use telephone numbers that are associated with another area.

As required by the Commission's rules, and consistent with the Public Notice issued by the Enforcement Bureau on November 7, 2005³ ("Public Notice"), this Report details Lightyear's efforts to provide E911 service to customers in compliance with Commission Rule 9.5(b) and (c), and comply with registered location requirements of Commission Rule 9.5(d). Pursuant to the information requested by the Enforcement Bureau in the Public Notice, the Company provides the following information to the Commission.

1) A quantification, on a percentage basis, of the number of subscribers to whom the Company is able to provide 911 service in compliance with the rules established in the *VoIP 911 Order*.

As of November 28, 2005, the Company is able to provide 911 service in full compliance with the rules established in the *VoIP 911 Order* to approximately 15% of the Company's VoIP subscribers through its VoIP E911 vendor arrangement with Level 3. However, Lightyear expects to migrate to a different E911 vendor, Telefinity, by approximately mid-December, 2005. When Lightyear completes this transition, it expects that approximately 72.2% of its customers will have E911 service in accordance with the *VoIP E911 Order*. Lightyear customers that do not have access to a 911 service that complies with the *VoIP 911 Order* are able to access an interim 911 solution. Specifically, customers that dial "911" that are not covered by Lightyear's E911 solution will reach an operator at Level 3, Lightyear's current E911 provider. That operator has access to the customer's call back number information (ANI), and redirects the customer to the appropriate PSAP.

2) A detailed statement as to whether the Company is transmitting, as specified in Paragraph 42 of the *Order*, "all 911 calls to the appropriate PSAP, designated statewide default answering point, or appropriate local emergency authority utilizing the Selective Router, the trunk line(s) between the Selective Router and the PSAP, and such other elements of the Wireline E911 Network as are necessary in those areas where Selective Routers are utilized."

³ *Enforcement Bureau Outlines Requirements of November 28, 2005 Interconnected Voice Over Internet Protocol 911 Compliance Letters*, WC Docket Nos. 04-36 and 05-196, Public Notice, DA 05-2945 (rel. Nov. 7, 2005).

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As detailed in response to question 1, for approximately 85% of Lightyear's customers, Lightyear's third-party solution provider, Level 3, is not able to transmit 911 calls to the appropriate PSAP, designated statewide default answering point, or appropriate local emergency authority utilizing the selective router, the trunk lines between the selective router and the PSAP, and such other elements of the Wireline E911 Network as are necessary in those areas where selective routers are utilized. However, as Lightyear transitions to the VoIP E911 services provided by Telefinity, the Company expects that number to decrease to approximately 28%.

3) If the Company is not transmitting all 911 calls to the correct answering point in areas where Selective Routers are utilized, a detailed explanation of why not.

As detailed in response to question 1, Lightyear is transitioning to a new VoIP E911 vendor that will significantly increase the percentage of customers that have access to 911 services. Also, right now, all Lightyear customers are either routed to the PSAP associated with their registered location or are connected to a live operator. Lightyear's existing vendor, Level 3, is only able to route calls to the correct answering point in areas where Level 3 offers its Enhanced Local Service product. This corresponds to 15% of Lightyear's customer base. Due to the limited overlap between Lightyear's customer base and Level 3's Enhanced Local Service product, coupled with the fact that Level 3's offering does not work with nomadic VoIP services, Lightyear is transitioning to a new third-party solution provider.

4) The number of Selective Routers to which the Company has interconnected, directly or indirectly, as of November 28, 2005.

As explained in response to questions 1 and 2, Lightyear relies on Level 3 (and will rely on Telefinity) to provide its VoIP E911 solution. Lightyear does not interconnect directly with any Selective Routers, instead Lightyear will rely on Telefinity to provide a complete E911 solution. According to information provided by Telefinity, when Lightyear transitions to Telefinity's service the Company will be indirectly interconnected to 154 Selective Routers.

5) A detailed statement as to whether the Company is transmitting via the Wireline E911 Network the 911 caller's ANI and Registered Location to all answering points that are capable of receiving and processing this information.

Based on information received from Telefinity, Lightyear believes that Telefinity will transmit via the Wireline E911 Network the 911 caller's ANI and Registered Location to all answering points that are capable of receiving and processing this information within the service areas of the 154 Selective Routers referenced above, once Telefinity's solution is implemented in mid-December. In all other areas, this information is not being transmitted at present.

6) The percentage of how many answering points within the Company's service area are capable of receiving and processing ANI and Registered Location information that the provider transmits.

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As explained in response to question 5, Lightyear's service area is potentially the entire world as the service is available from any location where a customer can obtain broadband Internet access. Pursuant to correspondence with Telefinity, Lightyear understands that 93% of the U.S. population is currently served by PSAPs utilizing E911 Selective Routers. To illustrate which PSAPs are not served by a Selective Router, Lightyear attaches a map provided by Intrado/Telefinity entitled "Basic PSAP" (Attachment A). While the areas not served by a PSAP utilizing an E911 Selective Router are not included within the *VoIP E911 Order* and are not required for compliance, Intrado is actively contacting these areas to determine technical options for VoIP E911 native call delivery. At present, however, Lightyear is unable to determine how many PSAPs that are connected to a Selective Router are unable to receive and process ANI and Registered Location information.

According to Intrado, Intrado is currently aware of four States and a Commonwealth that have native Selective Routing functionality but will only provide ANI-only service (not Registered Location information) to the PSAP. In New Jersey, Intrado (Telefinity's underlying network provider) has gained permission to deploy a voice-only service that enables the call taker to receive ANI on the VoIP 911 caller, but the state ALI system is not capable of full dynamic ALI updates and will require an upgrade. Ohio and Hawaii have not granted permission to Intrado to deploy a voice-only solution, and these states' ALI systems are not capable of full dynamic ALI updates. Further, Puerto Rico has not granted permission to Intrado to deploy a voice only solution, and the ALI systems are not capable of full dynamic ALI update.

7) The percentage of subscribers whose ANI and Registered Location are being transmitted to answering points that are capable of receiving and processing this information.

Lightyear lacks information regarding the percentage of PSAPs able to receive and process ANI and Registered Location information. However, through Lightyear's discussions with Telefinity, it is Lightyear's belief that the Company will have the capability of transmitting ANI and Registered Location information, through its third party vendor, to entities able to utilize this information for approximately 72.2% of its customers once the transition to Telefinity is completed.

8) If the Company is not transmitting the 911 caller's ANI and Registered Location to all answering points that are capable of receiving and processing this information, a detailed explanation why not.

Please refer to Lightyear's responses to question 5 and 6 above.

9) To the extent the Company has not achieved full 911 compliance with the requirements of the *Order* in all areas of the country by November 28, 2005, the Company should describe in detail, either in narrative form or by map, the areas of the country, on an MSA basis, where it is in full compliance and those in which it is not.

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Please see the attached map provided by Lightyear's third-party vendor, Telefinity, demonstrating the planned schedule for achieving nationwide E911 deployment (Attachment B). However, this estimate is predicated on an estimate by Intrado, the underlying VoIP E911 network provider on which Lightyear's vendor relies, that full E911 coverage will be in place by June 2006 for at least one Selective Router per county (where Selective Routers are utilized). Lightyear is unable to determine at this time which counties are served by more than one Selective Router. As such, it is impossible for Lightyear to determine whether full coverage will be reached by June 2006, or whether certain customers may still be without E911 service in counties with two or more Selective Routers where Intrado has not interconnected with all available Selective Routers in those areas.

10) If not in full compliance, the Company's plans for coming into full compliance with the requirements of the *Order*, including its anticipated timeframe for such compliance.

As noted above, Lightyear's plan for compliance necessarily relies on the efforts of its third party vendor, Telefinity. Telefinity's projected timeframes for full compliance includes factors outside of Telefinity's control. Specifically, Telefinity's timeframes may or may not be met based on the level of cooperation of PSAPs, RBOCs and state and local agencies involved in the deployment of E911 services. Further, access to pseudo-ANI, testing and deploying solutions reliant on pseudo-ANI depend on the activities by this Commission and the entities appointed to be responsible for assigning these resources. Telefinity cannot predict with certainty as to when it will have a fully compliant E911 solution in place for all of Lightyear's customers but based on the information currently available to Telefinity, it expects to deploy a nationwide solution that will cover all Lightyear customers in the next 9 months. However, there are certain areas in the country where Telefinity will not have a VoIP E911 solution in place within this timeframe.

For nomadic VoIP services, to be in compliance with the Commission's *Order*, Lightyear, through Telefinity, would have to have a solution deployed throughout the United States and its territories. As detailed above, Lightyear is currently accepting and processing Registered Location information for its customers. Should a customer provide a location that is within Lightyear's VoIP E911-capable footprint, service will not be disrupted. However, should a customer provide Lightyear a location that is outside of the Company's VoIP E911 footprint, Lightyear is examining ways to suspend service.

11) A detailed description of all actions the Company has taken to obtain each existing subscriber's current Registered Location and each new subscriber's initial Registered Location (including, but not limited to, relevant dates and methods of contact with subscribers and a quantification, on a percentage basis, of the number of subscribers from whom the Company has obtained the Registered Location).

Lightyear has obtained Registered Location information for 100% of its customers. On July 1, 2005, Lightyear completed upgrades to its website and VoIP Account Manager that

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obtains initial Registered Location information for new subscribers, and allows customers to provide and update their Registered Location information with the Company. This system is also used for billing, notification and affirmative acknowledgement procedures, and other account status information. Thus, from July 1, 2005 forward, Lightyear has obtained Registered Location information from all new Lightyear customers at the point of service initiation.

Since July 1, 2005, all Lightyear customers have seen the Company's E911 Registered Location information request on the Company's website and Account Manager. On November 16, 2005, Lightyear sent current customers an e-mail noting that the Company will be using the shipping addresses used to send them the CPE used with the Company's service (or addresses provided at signup if after July 1, 2005) for their Registered Location information, and that they should review and update the address on file with Lightyear if appropriate.

When Lightyear transitions to Telefinity's VoIP E911 service, the companies will exchange customer location information, and Lightyear will send another notice to its customers explaining Telefinity's service, and again requesting that they review their Registered Location information. Further, Lightyear will have to redesign its Registered Location information processes to meet Telefinity's service practices. For example, Lightyear currently only uses one Registered Location per customer. However, transition to Telefinity's service will allow Lightyear customers to utilize up to five locations, as well as one "variable" location that customers can use when using the service nomadically. As such, Lightyear will have to redesign its internal Registered Location systems to allow for this new feature.

- 12) A detailed description of the method(s) the Company has offered its subscribers to update their Registered Locations. This information should include a statement as to whether the Company is offering its subscribers at least one option for updating their Registered Location that permits them to use the same equipment that they use to access their interconnected VoIP service.**

As noted above, the Company has updated its website and has provided customers with an Account Manager feature that allows users to update their Registered Location information from any location where they have access to an Internet connection. Further, the Company has provided customers with a toll-free number whereby customers can speak with a customer care representative to update this information with the Company. Further, according to information provided by Telefinity, once Lightyear transitions to that company's E911 service, subscribers can update their Registered Location by either: (a) using Telefinity's website, or (b) using the Telefinity "Dash911" telephone touch tone (IVR) system to either select another pre-registered address that the subscriber may already have on file (as discussed above), or to ask for an operator who will make the address change while the customer is on the phone. Please also refer to Lightyear's response to Question 11 above.

- 13) A detailed description of any technical solutions the Company is implementing or has implemented to ensure that subscribers have access to 911 service whenever they use their service nomadically.**

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After transitioning to Telefinity's service, Lightyear will not have a nomadic solution in place if the customer takes the VoIP service to a location in some markets within the top 20 MSAs and virtually any location outside of the top 20 MSAs in the continental United States. Lightyear is unaware of any third party provider that is offering a solution that will cover the entire United States (including Alaska and Hawaii), the territories and possessions. As noted above, Lightyear subscribers have the ability to update their Registered Location information with the Company. If they provide new a Registered Location within Lightyear's VoIP E911 footprint, they will have access to E911 functionality in compliance with the *Order*. Lightyear is currently exploring what the Company will do (and what is technically feasible) to cover customers that provide a location outside of Lightyear's E911 footprint.

- 14) **A description of any automatic detection mechanism that enables the Company to identify when a customer may have moved his or her interconnected VoIP service to a new location and ensure that the customer continues to receive 911 service even when using the interconnected VoIP service nomadically.**

Lightyear notes that the *Order* specifically states that there is no requirement that VoIP providers provide an automatic location detection capabilities that allow VoIP providers to identify when a subscriber moves to a new location.⁴ Thus, although the *Public Notice* mentions that the plans submitted by AT&T, MCI, and Verizon claim that those companies are developing such automatic detection systems, Lightyear has no plans at this time to independently develop such a capability. Lightyear is, however, reviewing the AT&T licensing agreement and considering other solutions that would provide the Company information concerning customer location. Although Lightyear has significant concerns regarding the AT&T Heartbeat proposal, the Company is reviewing these and other technologies, and will actively work towards implementing a solution that the Company and the industry determines is in the best interest of public safety.

Respectfully submitted,



Russell M. Blau

Ronald W. Del Sesto, Jr.

Counsel for Lightyear Network Solutions,
LLC

cc: Byron McCoy (FCC)
Kathy Berthot (FCC)

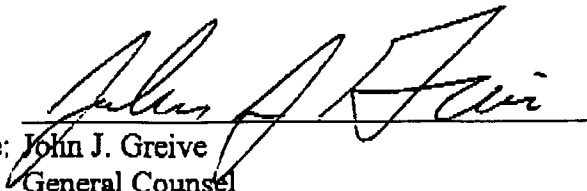
⁴ See *Order*, ¶ 46 & n.146.

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Janice Myles (FCC)
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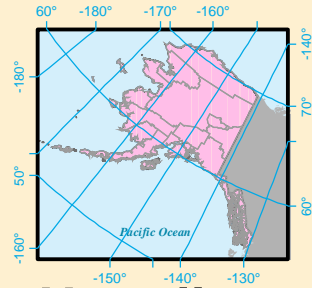
I, John J. Greive, state that I am General Counsel of Lightyear Network Solutions, LLC; that I am authorized to submit the forgoing *VoIP E911 Compliance Report* ("*Report*") on behalf of Lightyear Network Solutions, LLC; that the *Report* was prepared under my direction and supervision; and I declare under penalty of perjury that the *Report* is true and correct to the best of my knowledge, information, and belief.


Name: John J. Greive
Title: General Counsel
Lightyear Network Solutions, LLC

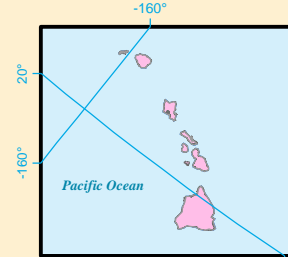
Attachment A

Intrado Basic PSAPs Map

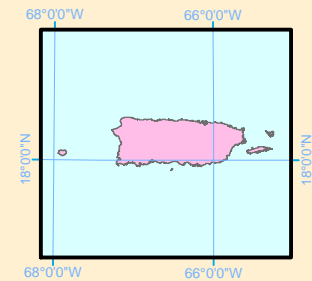
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Hawaii

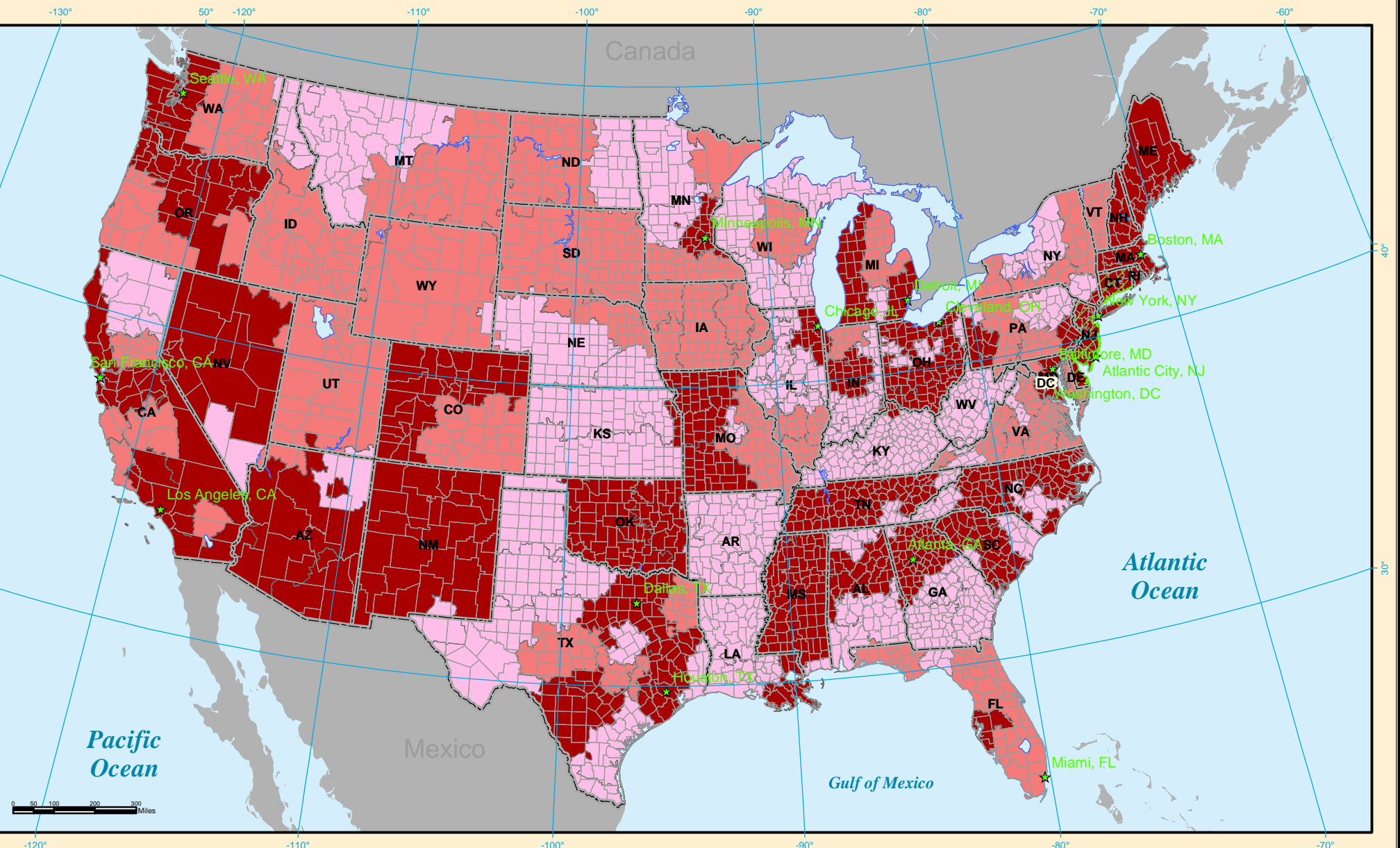


Puerto Rico



Legend

- Planned for 11/28/2005
- Planned for 3/31/2006
- Planned for 6/30/2006
- County Boundary
- ★ or
 Top 20 MSAs
- Lakes



Intrado Major Market Rollout Schedule

Albers Projection
Central Meridian: -96
1st Std Parallel: 20
2nd Std Parallel: 40
Latitude of Origin: 40

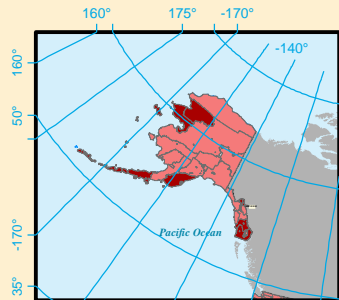
Intrado™
Informed Response.™

Intrado
WOS GIS Operations Team
Date: November 2005
Data Source: Meridian, Geode, IPS, ESRI Data
Created in ArcGIS 8 using ArcMap

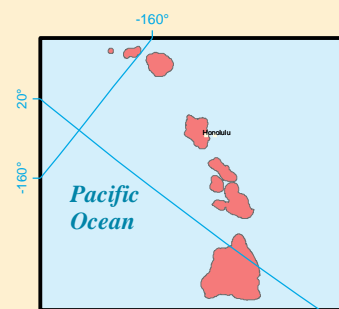
Attachment B

Intrado Major Market VoIP E911 Rollout Map

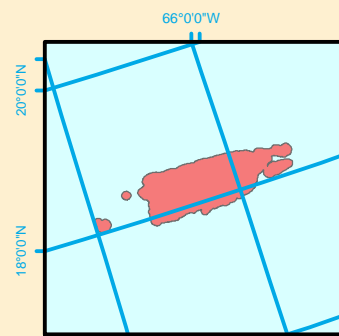
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Hawaii

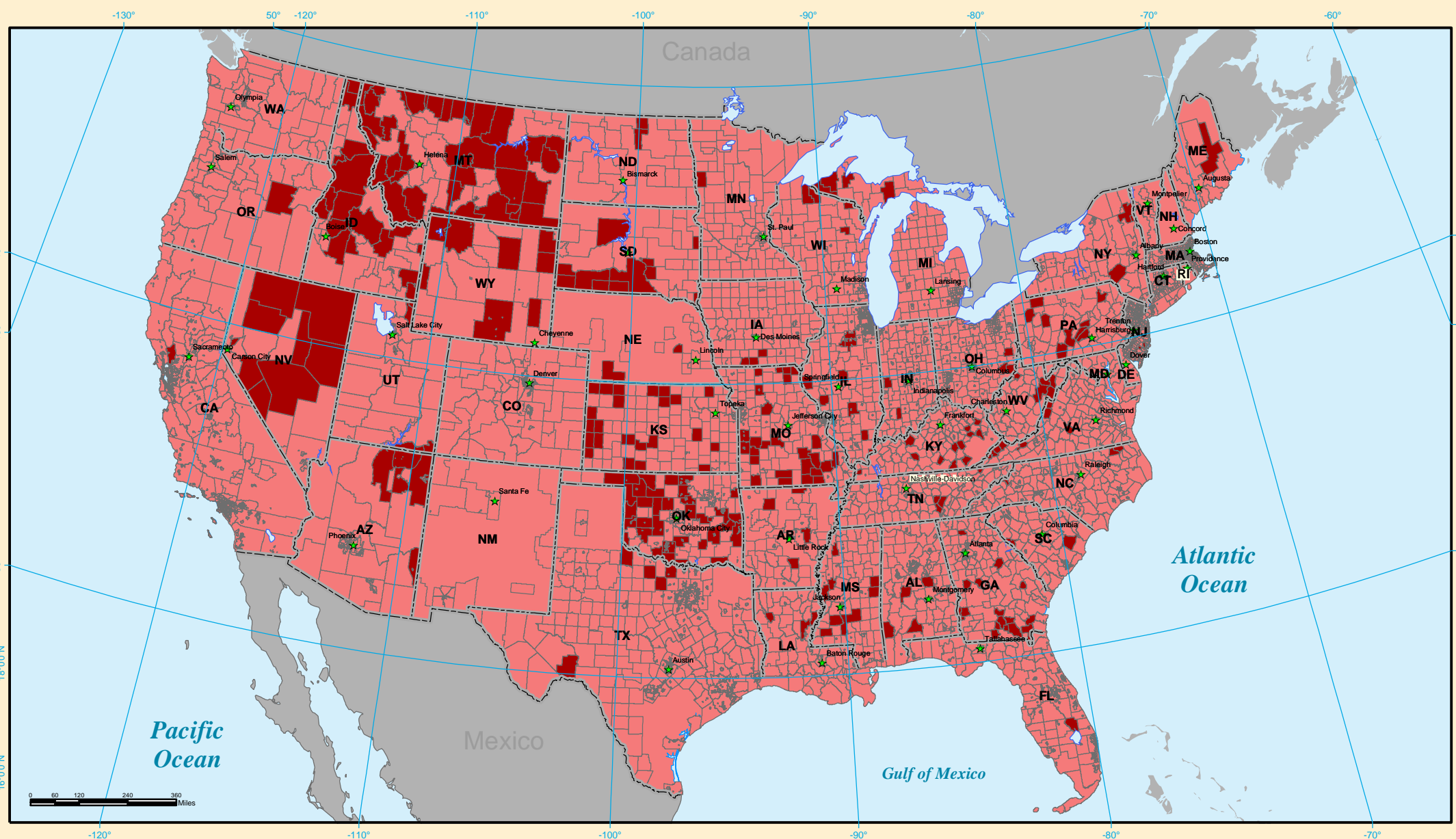


Puerto Rico



Legend

- Basic PSAPs
- Other PSAPs
- Capital Cities
- Lakes



Basic PSAPs

Albers Projection

Central Meridian: -96
1st Std Parallel: 20
2nd Std Parallel: 60
Latitude of Origin: 40

Intrado

Intrado

WOS GIS Operations

November 2005

Data Source: Geode, Meridian, ESRI Data

Created in ArcGIS 8 using ArcMap